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ABSTRACT

A group of 45 undergraduates discussed a moral issue with a confederate who had the same opinion (no-controversy) or opposite opinion (controversy). Subjects in the controversy conditions were induced to have a high level of defensiveness by a disconfirmation of personal competence or a low level of defensiveness by a confirmation. Subjects in no-controversy indicated more conceptual conflict (uncertainty) and were more accurate in taking the cognitive perspective of the confederate than were subjects in the confirm no-controversy condition. These results support Piaget's and Kohlberg's views of the role of controversy in perspective-taking and cognitive development and Berlyne's theory of conceptual conflict and epistemic curiosity. Subjects in the disconfirm controversy condition experienced more uncertainty and were more accurate in cognitive perspective-taking than were subjects in the confirm controversy condition. Subjects in the disconfirm controversy condition also experienced more internal distress, derogated the confederate and the confederate's position and arguments to a greater extent, and indicated greater closed-mindedness in responding to the confederate and the confederate's arguments than did subjects in the confirm controversy condition. (Author)

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# Controversy, Defensiveness, and Cognitive Perspective-Taking

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# The Effects of Controversy and Defensiveness on Cognitive Perspective-Taking

Psychologists have stressed the significance of perspective-taking for cognitive and social development and for social interaction. Piaget (1948, 1950 and Kohlberg (1969) have argued that learning to take the perspective of others is required for advanced levels of thought and moral reasoning. Taking the perspective of others is thought to be a basis for the development of the self-concept (Mead, 1934), the ideal self-image (Leahy and Huard, 1976), and the ability to cooperate (Johnson, 1975a, 1975b; Mead, 1934). Perspective-taking has been found to increase the effectiveness of communication (Flavell, 1968), therapy (Rogers, 1951), group problem-solving (Falk and Johnson, 1977), and conflict resolution (Johnson, 1971). Research has concentrated on the definition and measurement of the ability of perspective-taking (e.g., Borke, 1971; Chandler and Greenspan, 1972; Kurdeck and Rodgon, 1975; Urberg and Docherty, 1976), the determination of its correlates with moral thought and social behavior (e.g., Johnson, 1975a; Selman, 1976; Zahn-Waxler, Radke-Yarrow, and Brady-Smith, 1977), and the documentation of its consequences on social interaction (e.g., Johnson, 1971). Little research has explored the situational variables that affect the accuracy of perspective-taking or its mediating processes (Flavell, 1974). This study investigates the effects of interpersonal conflict of ideas, with high and low levels of defensiveness, on the arousal of intrapersonal conceptual conflict, information seeking, and the accuracy of cognitive perspective-taking.

Perspective-taking is understanding another's affective, cognitive, and visual reactions to the present situation (Borke, 1971; Flavell, 1974; Johnson, 1975a). In a recent review, Shantz (1975) suggested that there are several types of perspective-taking and that they should be distinguished by the kind of reaction that is understood. Cognitive perspective-taking is knowing the organized pattern of thought that is being used to structure the other's knowledge and reasoning. In cognitive developmentalist terms, cognitive perspective-taking is identifying the stage or structure of the other's reasoning (Kohlberg, 1969).

Cognitive developmentalists (Kohlberg, 1969; Piaget, 1948, 1950) have proposed that involvement in repeated controversy (a discussion in which opposing opinions clash) promotes the development of the ability to take accurately the cognitive perspective of others. They assume that controversy creates the incentives for understanding the structure of another's thought. The findings from several studies (Blatt, 1969; Jensen and Larm, 1970; Maitland and Goldman, 1974; Miller and Brownell, 1975; Silverman and Geiringer, 1973; Silverman and Stone, 1972; Smedslund, 1961) that interpersonal discussions, assumed to contain controversy, result in cognitive and moral development provide indirect support for this dynamic. Tjosvold and Johnson (1977) provide direct evidence that controversy, compared to discussions without controversy, can increase accuracy of cognitive perspective-taking. However, the processes that mediate this relationship and the conditions under which this

relationship is strongest need to be explored.

One formulation of the process mediating the relationship between involvement in a controversy and accurate cognitive perspective-taking may be derived from Berlyne's (1963, 1965) work on conceptual conflict. Involvement in a confrontation with a person whose ideas oppose one's own may create feelings of uncertainty as to whether one's original ideas or the opponent's ideas are correct. Such an internal incompatibility of ideas motivates a search for additional information in order to resolve one's uncertainty. One's search for additional information includes an examination of the opponent's ideas, resulting in increased understanding of the opponent's cognitive perspective. The final result is a cognitive restructuring of one's ideas which may or may not incorporate aspects of the opponent's position.

The above formulation assumes that controversy is managed in a constructive rather than a destructive way. An important aspect of constructive management of controversy is the ability to disagree with the opponent's ideas while confirming the opponent's personal competence. Disagreeing with other people while imputing that they are incompetent tends to increase their commitment to their own ideas and their rejection of the other's ideas (Brown, 1968, Tjosvold, 1974). Thus it may be hypothesized that controversy that includes confirmation of the opponent's competence, as compared with a discussion that includes confirmation but no contro-

versy, promotes greater subjective feelings of uncertainty, greater search for information, and more accurate perspective-taking. It may also be hypothesized that controversy that includes confirmation of the opponent's competence, compared with controversy that includes communication of the opponent's incompetence, results in greater accuracy of cognitive perspective-taking, less internal distress, and more open-mindedness toward the opponent and the opponent's ideas.

## Method

### Subjects

Forty-five male and female undergraduates, recruited from courses at The Pennsylvania State University to participate in this study, were randomly assigned to the three conditions, 15 in each condition. They received course credit for their participation.

### Independent Variables

The three conditions created in this study were no-controversy with confirmation, controversy with confirmation, and controversy with disconfirmation. All subjects read a moral dilemma taken from the Defining Issues Test (Rest, 1974) and indicated their opinion as to whether the principal should or should not stop a student newspaper. No-controversy with confirmation was operationalized as having a trained confederate argue the same opinion as the subject as to how the principal should act and indicating that the subject was personally competent. Controversy with confirmation

was operationalized as having the confederate take the opposite opinion from the subject as to how the principal should act and indicating that the subject was personally competent. Controversy with disconfirmation was operationally defined as a trained confederate taking the opposite opinion from the subject as to how the principal should act and indicating that the subject was personally incompetent. The no controversy-controversy induction thus involved the agreement or disagreement of the content of the positions of the subject and confederate. No attempt was made to vary or measure their agreement or disagreement as to the structure of their reasoning behind their opinion. The random assignment of subjects to conditions was expected to distribute any difference between the subject and confederate as to their stage of reasoning across the conditions.

Dependent Variables

There are four sets of dependent variables included in the study. The first pair dealt with accuracy of cognitive perspective-taking. The first operational measure consisted of having subjects indicate how the confederate would reason on two other moral dilemmas taken from the Defining Issues Test by picking from the list of twelve arguments the four the confederate would most likely use to support his position. The Defining Issues Test consists of a series of moral dilemmas to which a respondent indicates what the person caught in the dilemma should do and then indicates from a list of arguments which ones are most important in deciding what the person

caught in the dilemma should do. The arguments are based on Kohlberg's (1969) stages of moral development. Each stage of moral development has a different underlying cognitive structure which is used to reach a decision as to how a moral dilemma should be resolved. The trained confederate consistently presented arguments based on a cognitive structure characterized by wanting to maintain social order through respect for authority, rules, laws, and the status quo (Stage Four in Kohlberg's hierarchy). Stage Four arguments were used because it was expected that subjects could (a) potentially understand this reasoning and (b) find it credible that a fellow student was using this reasoning. On the first moral dilemma presented to the subjects to measure their ability to understand the perspective of the confederate, four of the twelve arguments were characterized by wanting to maintain social order; on the second dilemma, three arguments were so characterized. To the extent that the subject was able to identify these seven arguments as being the ones the confederate would use to reach a decision as to how the moral dilemma should be resolved, the subject was considered to understand the cognitive perspective of the confederate.

The second measure of cognitive perspective-taking accuracy consisted of giving the subjects a one-paragraph description of each of Kohlberg's stages two through six, and asking the subjects to indicate the stage reflecting the type of reasoning the confederate used during the discussion. To the extent that subjects choose stage four they were considered to have accurately taken the

confederate's cognitive perspective.

The second dependent variable is degree of conceptual conflict or uncertainty. Uncertainty was measured by two 7-point items in the post-experimental questionnaire, one focusing on the degree to which the subjects felt informed by the confederate's presentation of her position and supporting arguments, and the other focusing on the degree to which the students believed they understood the confederate's arguments. Subjects' responses to the two questions were added together and then divided by two. Subjects who believed that the confederate's presentation was uninformative and believed that they understood the confederate's arguments were assumed to be still certain of their original position and experiencing little conceptual conflict.

The third set of dependent variables consisted of experienced internal distress and derogation of the confederate and her arguments. Internal distress was measured by four semantic-differential items on the post-experimental questionnaire on which the subjects indicated on 7-point scales their degree of tenseness, worry, uncomfortableness, and unpleasantness. Derogation of the confederate was measured by 7-point questions on the post-experimental questionnaire that asked the subjects to indicate their liking for the confederate and extent they wished to meet the confederate socially. Derogation of the confederate's arguments was measured by the number of statements the subjects made that were critical of the con-

federate's position and arguments.

The final set of dependent variables focused on subjects' open-mindedness in responding to the confederate's position and arguments. On the post-experimental questionnaire, subjects indicated on 7-point scales the extent they felt they had learned in the discussion, their perceived agreement between their arguments and the confederate's arguments, their interest in hearing more of the confederate's arguments, and the extent they perceived the confederate as listening to them with an open mind.

Procedure

The experiment was conducted in four phases: each subject individually decided what course of action should be taken in a moral dilemma, prepared for a discussion about the moral dilemma with a partner, discussed the moral dilemma with a person from another group, and was debriefed. Two subjects and two confederates (posing as subjects) were scheduled at each session. During the first phase the subjects were escorted to separate rooms and asked to read a moral dilemma and to decide what course of action should be taken by the person caught in the dilemma. The moral dilemma involved a principal deciding whether or not to allow a student newspaper to continue though it had caused considerable parental reaction. After each subject indicated a position, the experimenter returned to the rooms to learn what course of action each subject had decided the principal should take.

To begin the second phase the experimenter escorted a confederate (posing as another subject) into the room and indicated that the subject and the confederate had reached the same opinion as to what the principal should do. The experimenter informed the subject that there was another pair of subjects participating in the experiment, and that during the next phase one member of each pair would participate in a discussion about the moral issue. In the no-controversy condition each subject was verbally told and given written instructions stating that the other pair of subjects had the same position as the subject did and that the subject should try to write a joint statement in the discussion with the person from the other pair. In the controversy conditions each subject was verbally told and given written instructions stating that the other pair of subjects had the opposing position as to how the principal should behave, and that the subject should try to write a joint statement in the discussion with the person from the other pair. Each subject was also given the following set of written instructions:

> The research in which you are to participate studies three types of behaviors: (1) the group planning of a common position, (2) the behavior of group representatives who meet with each other to discuss an issue, and (3) the group evaluation of any joint statement made by these representatives. The research session is divided into three corresponding parts which are outlined below.

Part 1: Your group has 10 minutes to develop your group's position. You should prepare yourself and your partner as well as possible for the meeting with the representative from the other group. This can be done by (1) summarizing the most important points, (2) arriving at any new arguments you can that support your group's position, and (3) giving each other any advice you have about the meeting with the representative from the other group.

A briefing sheet has been given to you to facilitate your preparation for the intergroup discussion in a short amount of time.

Part 2: This part will last about 35 minutes. Discussants from each group will meet to discuss the issue. The meeting will have the following procedure: (1) each person verbally presents his position and the arguments that support his position in about three minutes; (2) each discussant will complete a short questionnaire; (3) the discussants then discuss freely for the rest of the phase via written messages; (4) the persons will complete a questionnaire; (5) the discussants will then have five minutes to write a joint statement.

Part 3: During this part you will meet with your partner to discuss any joint statement reached with the

discussant from the other group.

In the second phase a briefing sheet was also given to the subject and the confederate outlining several arguments (representing all of Kohlberg's stages except for the first) to help them prepare for the discussion with a member of the other pair. At the end of the second phase the subject and the confederate completed a short questionnaire measuring their commitment to their position and their personal involvement in the moral dilemma.

During the second phase the confederate's role was to ensure that the subject understood the instructions, was prepared for the intergroup discussion, was committed to the group's position, and was personally involved in the dilemma and situation. The confederate did not suggest any arguments that were not on the briefing sheet, but encouraged the subject to develop and use new arguments and to discard any arguments on the briefing sheet the subject did not believe in.

In the third phase the two confederates exchanged rooms, and each was introduced as a representative from the other group. As instructed, the subject verbally summarized his position in three minutes or so, and the confederate followed. They then completed a questionnaire that asked them to rate each other's personal competence. In the confirm controversy and confirm no-controversy conditions, the confederate indicated that she perceived the other as a competent person who was doing a capable job or presenting

his views. In the disconfirm controversy condition, the confederate indicated that she perceived the other as personally incompetent and doing an incapable job presenting his views. These questionnaires were exchanged without prior announcement. This procedure was adopted so that the subjects would believe that the questionnaire represented the confederate's true opinions rather than an attempt to manipulate him. In the pilot study, subjects had indicated that they did not expect the exchange of questionnaires and thought the questionnaires represented the other's true views. After the subject and confederate read each other's questionnaires, they were instructed to carry out the rest of the discussion via written messages. After twenty-five minutes, the experimenter reentered the room, separated the subject and the confederate, and administered the post-experimental questionnaire. This ended the experiment, and the subjects were then fully debriefed, thanked, and given course credit for participating in the study.

Written messages were used in phase 3 to help standardize the confederate's behavior. These written records also provide an accurate account of the subjects' interactions. As in previous studies, subjects seem to adapt quickly to this limitation (Tjosvold and Kastelic, 1976). Two coders independently identified the messages that were critical of the confederate's position. The proportion of agreements between the raters in this analysis was equal to .96. Their agreed upon ratings were used.

In the third phase the confederate's role was to present a detailed script based on a reasoning process emphasizing maintaining social order through respect for authority, rules, and the status quo (stage four in Kohlberg's theory). They discussed the dilemma in a standard, nonexcited manner. In their opening presentation, they mentioned three major arguments. In the free discussion period, they elaborated on their arguments in a standard way whenever the subject requested that they do so.

Confederates

Eight female undergraduates were used as confederates. They were given 15 hours of training in how to induce subject commitment and involvement in the experimental situation and in how to present two detailed scripts (one pro and one con) concerning the moral dilemma discussed in a standard manner. All confederates were trained to say the same thing using similar language, syntax, and length, except for the differences required by the operationalizations of the independent variables. The confederates were observed piloting six subjects each to ensure their competence in fulfilling the confederate's role. Each confederate was used in all three conditions.

Induction Checks

The results of the induction checks given at the end of the second phase indicate that all subjects were committed to their position and were personally involved in the moral dilemma. There

were no significant differences among conditions on these measures and, therefore, the means are not presented.

## Results

To test the hypotheses, subjects were placed in a controversy and either experienced a confirmation or disconfirmation or were placed in no controversy and were confirmed. To check on the effectiveness of the controversy condition, subjects rated the extent they believed their position was similar to the other group on a 7-point scale at the end of phase 2 and before the discussion. As expected, subjects ($\underline{M}$ = 3.31) in the no controversy rated that their position was more similar than did subjects ($\underline{M}$ = 5.93) in the controversy conditions, $\psi$ contrast, $\underline{t}$ (42) = 5.82, $\underline{p} < .01$. After phase three, subjects indicated on two 7-point questions the extent the other perceived them as an effective discussant and personally competent. As expected, subjects ($\underline{M}$ = 2.43) in the disconfirm condition indicated that the other thought they were less effective and competent than did subjects ($\underline{M}$ = 5.13) in the confirm controversy and confirm no-controversy conditions, $\psi$ contrast, $\underline{t}$ (42) = 6.59, $\underline{p} < .01$. Therefore, it can be concluded that the inductions necessary to test the hypotheses were successful.

The results (summarized in Table 1) generally support the hypothesis that persons in controversy who experience confirmation are more accurate perspective-takers and have greater feelings of uncertainty than those who experience confirmation in a discussion

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Insert Table 1 about here

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without controversy. Subjects in the disconfirm controversy condition more accurately identified the stage of the other's reasoning, indicated that they were more uncertain, and perceived more disagreement with the other than subjects in the confirm controversy condition.

The second hypothesis is that confirm controversy provokes more accurate cognitive perspective-taking, less internal distress, and more open-mindedness toward the opponent and his perspective than disconfirm controversy. Results support part of this hypothesis and suggest a revision of it. Unexpectedly, subjects in the disconfirm controversy more accurately identified the other's reasoning than did subjects in the confirm controversy. Moreover, subjects in the disconfirm controversy indicated greater feelings of subjective uncertainty than did subjects in the confirm controversy. Other results are consistent with the hypothesis. Subjects in the disconfirm controversy indicated that they felt more uncomfortable, tense, worried, and unpleasant than did subjects in the confirm controversy condition. Subjects in the disconfirm controversy also demonstrated more derogation of the other in that they indicated greater dislike, were less willing to meet the other socially, and sent more messages critical of the other's arguments than did subjects in the confirm controversy. Moreover, subjects in the dis-

confirm controversy indicated closed-mindedness toward the other's presentation. They expressed less interest in hearing more arguments, believed their position was more in disagreement with the other's, perceived the other as more closed-minded, and rated that they learned less from the discussion than did subjects in the confirm controversy condition.

## Discussion

Accurately understanding the cognitive perspective of others is thought to be central to cognitive and social development and to effective social interaction. Results support the argument of the cognitive developmentalists that involvement in repeated interpersonal controversies promotes the development of the ability to understand accurately others' cognitive perspectives and suggest the process mediating such a relationship. Involvement in a controversy that contains confirmation of the opponent's competence, compared with a discussion lacking any disagreement but containing confirmation of the opponent's competence, resulted in less perceived agreement, greater feelings of subjective uncertainty, and more accurate cognitive perspective-taking. The implications of these findings are that the relationship between involvement in a controversy and accuracy of cognitive perspective-taking is mediated by experiencing conceptual conflict and resolving it through obtaining more information. These findings also support Berylne's (1963, 1965) theorizing concerning conceptual conflict.

While the cognitive development theorists and Berlyne do not discuss the constructiveness with which interpersonal controversies are managed, the amount of defensiveness generated in the opponent can be expected to influence the way in which conceptual conflicts are resolved (Johnson, 1971, 1977; Tjosvold, 1974). The findings of this study indicate that involvement in a controversy containing confirmation of the opponent's competence, compared with involvement in a controversy containing inferences to the opponent's incompetence, results in more perceived agreement, less subjective uncertainty, and less accurate cognitive perspective-taking. Superficially these findings present an interesting paradox that the more defensiveness generated in a controversy, the more accurate the cognitive perspective-taking resulting. Yet the findings concerning internal distress, attitudes toward the opponent, openness to the opponent's position, and personal value of the controversy suggest the destructive consequences of defensiveness. Subjects in the controversy-confirm condition, compared with subjects in the controversy-disconfirm condition, experienced less internal distress, liked the opponent better and indicated a strong wish to meet with the opponent socially, were less critical of the opponent's ideas and were more interested in hearing more of the opponent's ideas, perceived the opponent as being more open-minded, and believed that they learned more from being exposed to opposing ideas. These findings imply that the greater one's defensiveness, the more one will reject the opponent and the opponent's cognitive

perspective, even though one accurately understands it.

The finding that level of defensiveness in the controversy affected accuracy of understanding and open-minded consideration of the other's perspective differently has important implications for the theories of the cognitive developmentalists and Berlyne. Piaget and Berlyne assumed that the desire to reduce disequilibrium or uncertainty motivates both an exploration of another's opposing perspective and a reformulation of one's own. This study suggests that persons who believe they have appeared incompetent to the other, while they may be interested in understanding the other's perspective, are unsympathetic to that person and closed-minded toward his perspective. It can be reasonably speculated that they are unlikely to use their knowledge of the other's perspective to restructure their own reasoning. More generally, these findings suggest that the theories of Berlyne and Piaget can be developed by examining the role of the interpersonal context of a person's intrapersonal conceptual conflict.

Evidence from this study support the contention of several conflict theorists (e.g., Deutsch, 1973) that controversy can have positive consequences. Many of the negative effects often associated with controversy--e.g., internal distress, derogation of the other's position, increased social distance--were found not to be related to controversy directly but rather to controversy that instituted disconforming the other's personal effectiveness.

In summary, evidence from this study supports the arguments of the cognitive developmentalists and Berlyne that confrontation with an opposing opinion promotes understanding of the structure of the opponent's reasoning. The experience of disconfirmation of personal effectiveness in controversy, compared to confirmation in controversy, may result in more accurate cognitive perspective-taking, more internal distress, and greater rejection of the other and the other's reasoning. The results when taken together suggest that controversy with confirmation, compared to controversy with disconfirmation or no controversy with confirmation, promotes both accuracy of perspective-taking and an open-minded consideration of that perspective.

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Table 1

Comparison of Means on Dependent Measures

| Variable | No Controversy | Confirm Controversy | Disconfirm Controversy | t-values, df = 28 |
|---|---|---|---|---|
| Accuracy of Stage Identification | 7% | 53% | 73% | Confirm vs. No, 3.13 ** |
| Accuracy of Reasoning Identification | 1.80 | 2.40 | 4.10 | Confirm vs. Disconfirm, 3.16 ** |
| Subjective Uncertainty | 2.53 | 4.07 | 5.37 | Confirm vs. No, 3.60 **<br>Confirm vs. Disconfirm, 2.47 * |
| Internal Distress | 2.33 | 2.50 | 3.48 | Confirm vs. Disconfirm, 2.86 ** |
| Liking for Other | 5.47 | 5.45 | 3.00 | Confirm vs. Disconfirm, 5.29 ** |
| Willingness to Meet Socially | 5.13 | 5.53 | 3.67 | Confirm vs. Disconfirm, 2.57 * |
| Criticism of Other's Position | 0.0 | 0.40 | 2.33 | Confirm vs. Disconfirm, 3.53 ** |
| Interest in Hearing More Arguments | 3.93 | 5.27 | 3.33 | Confirm vs. Disconfirm, 2.33 * |
| Perceived Agreement | 6.13 | 3.53 | 2.40 | Confirm vs. No, 5.71 **<br>Confirm vs. Disconfirm, 2.39 * |
| Other's Open-mindedness | 5.87 | 5.40 | 1.93 | Confirm vs. Disconfirm, 5.22 ** |
| Subjective Learning | 4.33 | 5.00 | 3.07 | Confirm vs. Disconfirm, 3.04 ** |

* $p < .05$ ** $p < .01$